

### **AMENDMENTS TO THE CLAIMS:**

The listing of claims will replace all prior versions, and listings of claims in the application:

#### **LISTING OF THE CLAIMS**

1. (Cancelled).
2. (Cancelled).
3. (Cancelled).
4. (Cancelled).
5. (Cancelled).
6. (Cancelled).
7. (Cancelled).

8. (Currently Amended) A process for the production of 3-iodo-2-propynyl butylcarbamate~~IPBC~~, which comprises the steps of:

- a. charging a reactor with an aqueous solution of a nonionic surfactant,
- b. cooling the reaction mass to a temperature of ~~less than~~from about 0°C to about 12°C,
- c. adding to the reaction mass an aqueous solution of a metallic iodide salt,
- d. adjusting the pH of the reaction mass to greater than 7 with a molar excess of ~~a alkali~~an alkali metal hydroxide, wherein the molar excess is based on the propynyl butylcarbamate to be added,
- e. charging the reaction mass with an effective amount of propynyl butylcarbamate,
- f. charging the reaction mass with a solution of an oxidizing agent while maintaining the temperature at ~~less than~~from about 0°C to about 11°C,
- g. agitating the reaction mass for an effective period of time and, during this period, ~~allowing~~preventing the temperature of the reaction mass ~~to ramp up to~~from exceeding a temperature of about 20°C,
- h. ramping the temperature of the reaction mass up to a temperature of ~~less than~~from about 35°C to about 40°C,
- i. adjusting the pH with an organic acid such that the pH of the reaction mass is slightly acidic,
- j. adjusting the pH to about 6.6,
- k. ramping the temperature of the reaction mass up to a temperature of ~~less than~~from about 55°C to 59°C ,
- l. ramping the temperature down to a temperature of about 25 to about 30°C,
- m. ramping, with agitation, the temperature of the reaction mass down to room temperature,
- n. filtering and washing the reaction mass with water and drying to a constant weight.

9. (Currently Amended) A process for the production of ~~3-iodo-2-propynyl-3-iodo-2-propynyl~~ butylcarbamate which comprises the steps of:

- a. charging a reaction vessel with an aqueous solution of a nonionic surfactant wherein the concentration of the nonionic surfactant is from about 15 to about 20 weight percent based on the weight of the below set forth amount of n-propynyl butylcarbamate-charge,
- b. cooling the solution to a temperature of from about 0 to about 8°C,
- c. adding to the reaction mass ~~from about 1.0 to about 1.03 weight percent of an iodide-a metal iodide salt~~ which is a member selected from the group consisting of sodium iodide and potassium iodide,
- d. adjusting the pH of the reaction mass to greater than 7 with an alkali metal hydroxide and providing an excess of from about 0.8 to about 1.0 moles of alkali per mole of ~~based on the n-propynyl-n-propynyl~~ butylcarbamate to be added,
- e. while stirring, adding to the reaction mass ~~from about 1 mole weight percent-a molar amount of n-propynyl-n-propynyl~~ butylcarbamate while maintaining the temperature of the reaction mass at from about 0 to about 8°C,
- f. while stirring, charging the reaction mass with from about 1.1 to about 1.3 ~~mole-percent~~ moles of sodium hypochlorite per mole of the metal iodide salt, while maintaining the temperature at from about 6 to about 11°C,
- g. allowing the temperature of the reaction mass to ramp up to from about 15 to about 20°C and continue the agitation for a period of time of from about 60 to about 120 minutes,
- h. ramping the temperature up to from about 35 to about 40°C at a rate of from about 0.25 to about 0.75 degrees per minute,
- i. adjusting the pH of the reaction mass to about 6.9 with acetic acid,
- j. adjusting the pH to about 6.6 with sodium bisulfite,
- k. ramping the temperature up to a temperature of from about 55 to about 59°C at a rate of from about 0.25 to about 0.75 degrees per minute,

- l. ramping the temperatures of the reaction mass down to a temperature of from about 25 to about 30°C at a rate of from about 0.35 to about 0.75 degrees per minute,
- m. washing the reaction mass with water, and
- n. drying the reaction mass at a temperature of from about 25 to about 45°C to a constant weight.

10. (Currently Amended) A process for the production of 3-iodo-2-propynyl butylcarbamate comprising the steps of:

- a. charging a reaction vessel with an aqueous solution of a nonionic surfactant wherein the concentration of the nonionic surfactant is from about 15 to about 20 weight percent based on the weight of the below set forth amount of n-propynyl butylcarbamate-charge,
- b. cooling the solution to a temperature of from about 0 to about 8°C,
- c. adding to the reaction mass ~~from about 1.0 to about 1.03 weight percent of an iodide~~ a metal iodide salt which is a member selected from the group consisting of sodium iodide and potassium iodide,
- d. adjusting the pH of the reaction mass to greater than 7 with an alkali metal hydroxide and providing an excess of from about 0.8 to about 1.0 moles of alkali ~~based on~~ per mole of the n-propynyl butylcarbamate to be added,
- e. while stirring, adding to the reaction mass ~~from about 1 mole percent~~ a molar amount of n-propynyl butylcarbamate while maintaining the temperature from about 6 to about 11°C,
- f. while stirring, charging the reaction mass with from about 1.1 to about 1.3 ~~mole percent~~ moles of sodium hypochlorite per mole of the metal iodide salt, while maintaining the temperature at from about 6 to about 11°C,
- g. allowing the temperature of the reaction mass to ramp up from about 15 to about 20°C and continuing the stirring for a period of time of from about 60 to about 120 minutes,

- h. ramping the temperature up to from about 35 to about 40°C, at a rate of from about 0.25 to about 0.75 degrees per minute,
- i. adjusting the pH of the reaction mass to about 6.9 with acetic acid,
- j. adjusting the pH to about 6.6 with sodium bisulfite,
- k. ramping the temperature up to a temperature from about 55 to about 59°C at a rate of from about 0.25 to about 0.75 degrees per minute,
- l. ramping the temperatures of the reaction mass down to a temperature from about 25 to about 30°C at a rate of from about 0.35 to about 0.75 degrees per minute,
- m. washing the reaction mass with water, and
- n. drying the reaction mass at a temperature from about 25 to about 45°C to a constant weight.

11. (Cancelled).

12. (Currently Amended) The ~~IPBC~~ 3-iodo-2-propynyl butylcarbamate produced by the process of claim 8.

13. (Original) The 3-iodo-2-propynyl butylcarbamate produced by the process of claim 9.

14. (Original) The 3-iodo-2-propynyl butylcarbamate produced by the process of claim 10.

15. (New) A process for the production of 3-iodo-2-propynyl butylcarbamate, comprising the steps of:

- a. charging a reaction vessel with an aqueous solution of a nonionic surfactant wherein the concentration of the nonionic surfactant is from about 15 to about 20 weight percent based on the weight of the below set forth amount of n-propynyl butylcarbamate;
- b. cooling the solution to a temperature of from about 0 to about 12°C;
- c. adding to the reaction mass a metal iodide salt;
- d. adjusting the pH of the reaction mass to greater than 7 with an alkali metal hydroxide such that from about 0.8 to about 1.0 moles of alkali per mole of the n-propynyl butylcarbamate to be added is provided,
- e. adding to the reaction mass a molar amount of n-propynyl butylcarbamate;
- f. charging the reaction mass with an oxidizing agent while maintaining the temperature of the reaction mass at a temperature of from about 0 to about 11°C,
- g. preventing the temperature of the reaction mass from exceeding 20°C while stirring for a period of time of from about 30 to about 180 minutes;
- h. ramping the temperature of the reaction mass up to a temperature of from about 35 to about 40°C at a rate of from about 0.25 to about 1.0°C per minute,
- i. adjusting the pH of the reaction mass to be slightly acidic;
- j. adjusting the pH to about 6.6;
- k. ramping the temperature of the reaction mass up to a temperature of from about 55 to about 59°C;
- l. ramping the temperatures of the reaction mass down to a temperature of from about 20 to about 30°C;
- m. washing the reaction mass with water; and
- n. drying the reaction mass to a constant weight.

16. (New) The process of claim 15, wherein in step (b) the solution is cooled to a temperature of from about 8 to about 10°C.

17. (New) The process of claim 15, wherein in step (c) the metal iodide salt is selected from the group consisting of sodium iodide and potassium iodide.

18. (New) The process of claim 15, wherein in step (d) the alkali metal hydroxide is selected from the group consisting of sodium hydroxide and potassium hydroxide.

19. (New) The process of claim 15, wherein in step (f) the oxidizing agent is selected from the group consisting of sodium hypochlorite, potassium hypochlorite, and hydrogen peroxide.

20. (New) The process of claim 15, wherein in step (f) the temperature of the reaction mass is maintained at a temperature of from about 4 to about 11°C.

21. (New) The process of claim 15, wherein in step (g) the reaction mass is stirred for a period of time of from about 60 to about 120 minutes.

22. (New) The process of claim 15, wherein in step (i) the pH is adjusted with an organic acid.

23. (New) The process of claim 22, wherein the organic acid is acetic acid.

24. (New) The process of claim 15, wherein in step (j) the pH is adjusted with a mild acid buffer.

25. (New) The process of claim 24, wherein the mild acid buffer is sodium bisulfite.

26. (New) The process of claim 15, wherein in step (k) the temperature is ramped up at a rate of from about 0.25 to about 0.75°C per minute.

27. (New) The process of claim 15, wherein in step (l) the temperature is ramped down at a rate of from about 0.25 to about 0.75°C per minute.

28. (New) The process of claim 15, wherein in step (m) the reaction mass is washed with water having a temperature of from about 10 to about 30°C.

29. (New) The process of claim 15, wherein in step (n) the reaction mass is dried at a temperature of from about 25 to about 45°C.